**CS416 Data Visualization**

**Narrative Visualization Report**

**Jingjing Yao**

**Messaging**

This narrative visualization is created by using the dataset about Instant Noodle reviews rating and styles distribution from around 40 countries. The message we are trying to communicate with the narrative visualization is to provide insights into the global distribution and ratings of instant noodle styles. The visualization is designed to showcase three main scenes: "Ramen Average Rating by Style," "Ramen Style Distribution," and "Explore Your Interested Country."

**Narrative Structure**

This narrative visualization follows the structure of a "martini glass," starting with a broad overview of the data in the first two scenes and gradually narrowing down to a specific focus in the third scene. Users can navigate through the scenes and make informed comparisons and explorations. This structure allows users to explore the data in a structured and guided manner.

**Visual Structure**

The narrative visualization uses a combination of bar charts and pie charts for each scene to present the data in a clear and visually appealing manner. In the first scene, a bar chart is used to show the average rating by different ramen styles. Different colors are used to differentiate each ramen style, and annotations are strategically placed to highlight important information. The second scene uses a pie chart to illustrate the ramen style distribution, with consistent colors and legend as the previous scene. We also use annotations call out some message to draw users’ attention. After exploring the first two scenes, now users can interact and explore the data specific to their interested country at the last scene. A drop-down box allows users to select their desired country, triggering the display of a bar chart showing the average ratings for different ramen styles in that country.

The presence of a navigation bar with "Next Page" and "Previous Page" buttons on the top of the page enhances the viewer's ability to transition between different scenes seamlessly. This navigation feature help viewers understand how the data connects and builds upon each other, allowing users to explore the data in a structured manner.

**Scenes**

The narrative visualization consists of three scenes:

1. Ramen Average Rating by Style:

In this scene, a bar chart is presented that display the average rating of different ramen styles from around 45 different countries. The x-axis represents the various categories or types of ramen styles, and each bar corresponds to a specific style. The y-axis displays the average rating for each ramen style. The purpose of this scene is to provide an overview of the average ratings of different ramen styles and to identify any variations in ratings among the styles across different countries.

1. Ramen Style Distribution:

The second scene features a pie chart that illustrates the distribution of ramen styles across all the reviews in the dataset. The pie chart provides a visual representation of the proportion of each style in the overall dataset. The legend and color scheme are consistent with the previous scene, ensuring continuity and ease of understanding. This scene aims to highlight the most prevalent and dominant ramen style worldwide and allows viewers to grasp the overall distribution of styles.

1. How about Your Country?

In the third and final scene, viewers are encouraged to explore the ramen ratings and styles specific to their interested country. This scene features a drop-down box where users can select their desired country. Once a country is selected, a bar chart is displayed showing the average rating of different ramen styles in that country. This interactive scene enables users to delve deeper into data relevant to their preferences and interests.

The scenes are ordered in a logical sequence. The first scene lays the foundation by presenting an overall view of ramen ratings across various styles and countries. The second scene follows naturally, building on the first scene by providing insights into the distribution of ramen styles. The final scene capitalizes on viewer engagement by offering a personalized exploration, allowing them to focus on data specific to their country of interest.

**Annotations**

The template followed for the annotations in the narrative visualization involves using lines to link the annotations to specific positions on the graph where the information is relevant. The annotations are positioned on the side of the line, providing the necessary information related to that data point. This template is chosen to draw the user's attention effectively to important insights within the graph.

In the first scene, the annotation emphasizes the high rating of the bar style despite its limited reviews. In the second scene, the annotation points out that "pack" is the most dominant style worldwide, which comprises more than half of all reviews.

**Parameters**

In the last scene, there is a drop-down box allows users to select their desired country. In this case, the parameter will be the country name selected from the dropdown menu.

The state of the narrative visualization will change when the user selects a different country from the dropdown menu. The data source will be filtered based on the selected country, and the bar chart will be updated to show the ramen average rating by style for the selected country. This allows the user to explore the ramen ratings and styles specific to their interested country and gain insights tailored to that region.

**Triggers**

In the third scene, the trigger is the user's selection from the dropdown menu. When the user selects a country from the dropdown menu, the state changes to reflect the selected country, and the visualization is updated to show the ramen average rating by style specific to the chosen country. This trigger allows the user to interactively explore the data for their interested country and gain insights customized to their preference.

Also, the "Next Page" and “Pre Page” links on the top of the page, these allow the user to navigate through the different scenes of the narrative visualization and explore the data in a sequential manner.